MATSUI 28WN04

Matrix

Item	See Model	Book
Safety Check	Matsui 2107NS	7
Disassembly Instructions	Matsui 2107NS	7
Service Mode List	Matsui 2107NS	7

Recommended Safety Parts

Item	Part No.	Description
R404	R.METAL MOR3WS101JB/B 100 OHM 3W MOR3WS101JB/B	R3X28B101J
R422	R,METAL OXIDE 1 OHM 2W MOR2W010JB/B	R3X18A010J
R423	R,METAL OXIDE 1.5K OHM 3W MOR3WS152JB/B	R3X28B152J
R426	R,METAL OXIDE 1.8K OHM 3W MOR3WS182JB/B	R3X28B182J
R428	R,METAL MOR2W181JB/B 180 OHM 2W MOR2W181JB/B	R3X18A181J
R433	R,FUSE RNF(L)2RR39J 0.39 OHM 2W RNF(L)2RR39J	R6558AR39J
R438	R,CEMENT RF-10ZYJ2R7 2.7 OHM 10W RF-10ZYJ2R7	R5W2CF2R7J
R450	R,METAL OXIDE 1K OHM 2W MOR2W102JB/B	R3X18A102J
R451	R,FUSE RNF(L)2R2R7J 2.7 OHM 2W RNF(L)2R2R7J	R6558A2R7J
R471	R,FUSE RNF(L)2RR39J 0.39 OHM 2W RNF(L)2RR39J	R6558AR39J
R501	RC 1.5M OHM 1/2W CF33-1/2T155J	R002T2155J
R503	R,CEMENT PRZA-2 10W 5.6J 5.6 OHM 10W PRZA-2 10W 5.6J	R5X2CF5R6J
R519	R,METAL OXIDE 27 OHM 3W MOR3WS270JB/B	R3X28B270J
R523	R.METAL MOR3WS470JB/B 47 OHM 3W MOR3WS470JB/B	R3X28B470J
R524	R,CEMENT PRZA-2W 5W 1 OHM 5W PRZA-2W 5W 1.0J	R5X2CD010J
R531	R,METAL OXIDE 33K OHM 3W MOR3WS333JB/B	R3X28B333J
R532	RC 4.7K OHM 1/4W	R002T4472J
R542	R,METAL MOR1WR27JB/B 0.27 OHM 1W MOR1WR27JB/B	R3X181R27J
R543	R,FUSE 680 OHM 1/2W RF50SSVTPA681J	R635U2681J
C501	CMP 0.22 UF 250V ECQUL ECQU2A224ML	P2122B224M
C502	CC 0.0022UF 250V DE1210-1E222M-KX	CB3930MH3M
C525	CC 100 PF 250V DE0910-1B101K-KX	CB3930M12K
C526	CMP 0.22 UF 250V AC MMCA 250MMCA224K UV	P2222B224K
C527	CC 100 PF 250V DE0910-1B101K-KX	CB3930M12K
C532	CC 470 PF 250V DE0910-1B471K-KX	CB3930MQ2K
D417	DIODE SILICON AU02A-EIC	D2WTAU02A0
D501	DOIDE SILICON RM11C-EIC	D2WTRM11C0
D502	DOIDE SILICON RM11C-EIC	D2WTRM11C0
D503	DOIDE SILICON RM11C-EIC	D2WTRM11C0
D504	DOIDE SILICON RM11C-EIC	D2WTRM11C0
D510	DIODE,SILICON 15DF6-FC	D28I15DF60
D511	DIODE SCHOTTKY 21DQ09N-TA2B1	D28T21DQN9
D512	DIODE SILICON AU02A-EIC	D2WTAU02A0
IC401	IC TA8859CP	I55DA8859C
IC403	IC TA8427K	I05SD84270
IC405	IC KIA7812PI	I1KA978120
IC501	IC STR-F6707A	I2BT06707A
IC502	IC KIA7805PI	I1KA978050
IC503	IC KIA7809PI	I1KA978090
IC504	IC KIA7805PI	I1KA978050
Q405	TRANSISTOR SILICON 2SD2499	TDUF024990
Q411	TRANSISTOR,FIELD EFFECT 2SK2010	T230002010
Q506	PHOTO COUPLER TLP621(D4-GR-LF2	0002500560
Q801	TRANSISTOR,SILICON 2SC4075-YAC	TC3Q040750
Q802	TRANSISTOR,SILICON 2SC4075-YAC	TC3Q040750
Q803	TRANSISTOR,SILICON 2SC4075-YAC	TC3Q040750
L503	COIL,DEGAUSS 8R280001	028R280001
L505	COIL CHOKE CH15012720	02D5000049
T501	TRANSFORMER,SWITCHING 81400596	0481400596
SW501	SWITCH SDDFC30400	0530205002
CD501	CORD AC 1206635818	1206635818
F501	FUSE 218004	0808T04002
FB401	TRANSFORMER,FLYBACK 3228003Q 3228003Q	043228003Q
RY501	RELAY SDT-S-112LMR	0560Q20114
V801	CRT W/DY W66EHK51X36 W66EHK51X36	0981280903

Memory IC Replacement

NOTE FOR THE REPLACING OF MEMORY IC
If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to TABLE 1.

NOTE: No need the setting for after INI 16.

INI	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
00	---	01	00	00	00	D1	3F	F8	3C	98	3C	1D	88	00	00	00
10	00	00	11	04	88	0A	FF	---	---	---	---	---	---	---	---	---

Table 1

1. The unit will now have the correct DATA for the new MEMORY IC.
2. Set to the STANDBY at the minimum of volume. Press the channel button (6) on the remote control for more than 3 seconds.
3. Press POWER button on the remote control to turn the POWER ON within 2 seconds. ADDRESS and DATA should appear as Fig. 1 (See Matrix).
4. ADDRESS is now selected and should “blink”. Using the VOL. UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press ENTER to select DATA. When DATA is selected, it will “blink”.
6. Again, step through the DATA using VOL. UP/DOWN button until required DATA value has been selected.
7. Pressing ENTER will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 7 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

Electrical Adjustments

1. BEFORE MAKING ELECTRICAL ADJUSTMENTS
Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION
- Use an isolation transformer when performing any service on this chassis.
- Before removing the anode cap, discharge electricity because it contains high voltage.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position. Inferior silicon grease can damage IC’s and transistors.
- When replacing IC’s and transistors, use only specified silicon grease (YG6260M). Remove all old silicon before applying new silicon.

Prepare the following measurement tools for electrical adjustments.

1. Digital Voltmeter

On-Screen Display Adjustment
1. Set to the STANDBY at the minimum of volume.
2. Press the channel button (9) on the remote control for more than 3 seconds.
3. Press POWER button on the remote control to turn the POWER ON within 2 seconds. The Fig. 1-1 screen will appear.
4. Use the PROG/PAGE UP/DOWN button or Channel button (0-9) on the remote control to select the options shown in Fig. 1-2.
5. Press the MENU button on the remote control to end the adjustments.

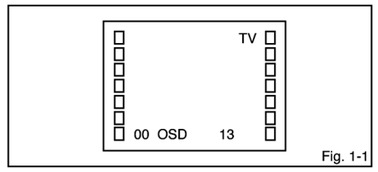


Fig. 1-1

NO.	FUNCTION	NO.	FUNCTION
00	OSD H	23	B-Y B
01	CUT OFF	24	LEVEL
02	RF.AGC	25	STEREO
03	VCO CENT	26	T.MONO
04	H.POSI(50)	27	T.STE
05	V.POSI(50)	28	V.LIN
06	V.SIZE(50)	29	H.SIZE(FULL)
07	V.LINEAR(50)	30	PARABOLA CORR(FULL)
08	V.S CORR(50)	31	V SIZE(FULL)
09	G.DRV	32	H SIZE(EXPAND)
10	B.DRV	33	PARABOLA CORR(EXPAND)
11	R.BIAS	34	V SIZE(EXPAND)
12	G.BIAS	35	H SIZE(NORMAL)
13	B.BIAS	36	PARABOLA CORR(NORMAL)
14	BRI	37	V SIZE(NORMAL)
15	CONT	38	PARABOLA CORR(CINEMA2)
16	UNI COL	39	V SIZE(CINEMA2)
17	TINT	40	H CORR
18	SHARP	41	V CORR
19	RGB CONT	42	CORNER CORR
20	SUB COL	43	TRAPEZOID DIS
21	B.B TINT	44	V.POSI
22	R-Y B	45	NOR. BLK

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: CONSTANT VOLTAGE
1. Place the set with Aging Test for more than 15 minutes.
2. Using the remote control, set the brightness and contrast to normal position.
3. Connect the digital voltmeter to TP501.
4. Set condition is AV MODE without signal.
5. Adjust the VR501 until the digital voltmeter is 135 ± 0.5V.

2-2: VCO CENT
1. Activate the adjustment mode display of Fig. 1-1 and press the channel button (03) on the remote control to select “VCO CENT”.
2. Adjust the L201 until the “OK” appears on the screen.

2-3: AGC VOLTAGE
1. Place the set with Aging Test for more than 15 minutes.
2. Receive an 80dB monoscope pattern.
3. Connect the digital voltmeter to pin 5 of CP101.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (02) on the remote control to select “RF.AGC”.
5. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 1.95 ± 0.05V.

2-4: CUT OFF
1. Place the set with Aging Test for more than 15 minutes.
2. Activate the adjustment mode display of Fig. 1-1 and press the channel button (01) on the remote control to select “CUT OFF”.
3. Adjust the Screen Volume until a dim raster is obtained.

2-5: WHITE BALANCE

NOTE: Adjust after performing CUT OFF adjustments.

1. Place the set with Aging Test for more than 10 minutes.
2. Receive the color bar pattern.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (11) on the remote control to select “R.BIAS”.
4. Using the VOL. UP/DOWN button on the remote control, adjust “R.BIAS”.
5. Press the PROG/PAGE UP/DOWN button on the remote control to select the “G.DRV”, “B.DRV”, “G.BIAS”, or “B.BIAS”.
6. Using the VOL. UP/DOWN button on the remote control, adjust the G.DRV, B.DRV, G.BIAS or B.BIAS.
7. Perform the above adjustments 5 and 6 until the white color is obtained.

2-6: FOCUS
1. Receive the monoscope pattern.
2. Turn the Focus Volume fully counterclockwise once.
3. Adjust the Focus Volume until picture is distinct.

2-7: BRIGHTNESS
1. Receive the black pattern*. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Change the wide screen mode to FULL.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (14) on the remote control to select “BRI”.
5. Press the VOL. UP/DOWN button on the remote control until the screen begins to shine.
6. Receive the black pattern*. (Audio Video Input)
7. Press the AV button on the remote control to set to the AV mode. Then perform the adjustments 2~5.

* The Black Pattern means the whole black raster signal. Select the “RASTER” of the pattern generator, set to the OFF position for each R, G and B.

2-8: HORIZONTAL POSITION
1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Change the wide screen mode to FULL.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (04) on the remote control to select “H.POSI(50)”.
5. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes minimum.
6. Receive the monoscope pattern of NTSC. (Audio Video Input)
7. Press the AV button on the remote control to set to the AV mode. Then perform the above adjustments 2~5.

2-9: VERTICAL POSITION
1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Change the wide screen mode to FULL.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (44) on the remote control to select “V.POSI”.
5. Press the VOL. UP/DOWN button on the remote control until the horizontal line becomes fit to the notch of the shadow mask.

2-10: CORNER CORR
1. Receive the cross hatch pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Change the wide screen mode to FULL.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (42) on the remote control to select “CORNER CORR”.
5. Press the VOL. UP/DOWN button on the remote control until the both ends of the vertical lines are straight.

2-14: NORMAL MODE (H. SIZE, PARABOLA, V. SIZE)
1. Receive the monochrome pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (35) on the remote control to select “H.SIZE(NORMAL)”.
4. Press the VOL. UP/DOWN button on the remote control until the picture size is 470 ± 5mm.
5. Press the CH UP button once to set to “PARABOLA CORR(NORMAL)” mode.
6. Receive the cross hatch pattern.
7. Press the VOL. UP/DOWN button on the remote control until the both ends of the vertical lines are straight.
8. Press the CH UP button once to set to “V.SIZE(NORMAL)” mode.
9. Receive the monochrome pattern.
10. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes 8 ± 2%.

2-15: NORMAL H. BLANKING
1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Change the wide screen mode to NORMAL.
4. Adjust VR651 until the difference of A and B becomes minimum. (Refer to Fig. 2-1)

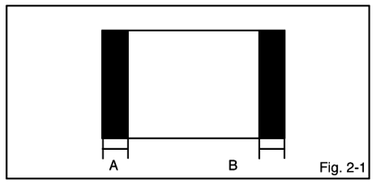


Fig. 2-1

2-16: CINEMA2 MODE (PARABOLA, V. SIZE)
1. Receive the monochrome pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (38) on the remote control to select “PARABOLA CORR (CINEMA2)”.
4. Press the VOL. UP/DOWN button on the remote control until the both ends of the vertical lines are straight.
5. Press the CH UP button once to set to “V.SIZE(CINEMA2)” mode.
6. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes 33 ± 2%.

2-17: OSD HORIZONTAL
1. Activate the adjustment mode display of Fig. 1-1.
2. Using the remote control, set the brightness and contrast to normal position.
3. Press the VOL. UP/DOWN button on the remote control until the difference of A and B becomes minimum. (Refer to Fig. 2-2)

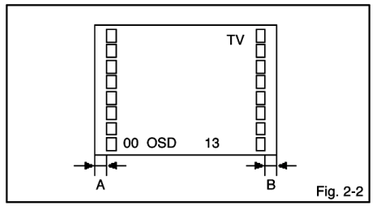
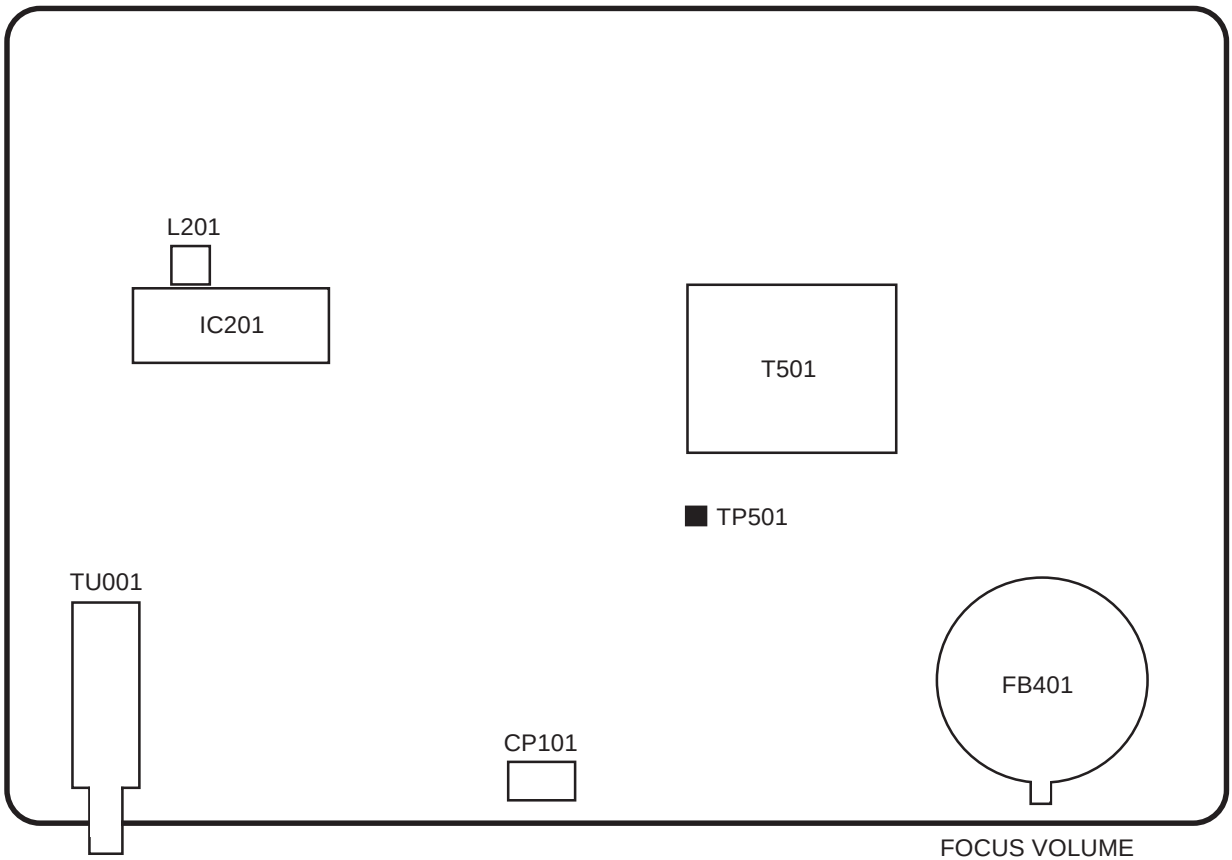
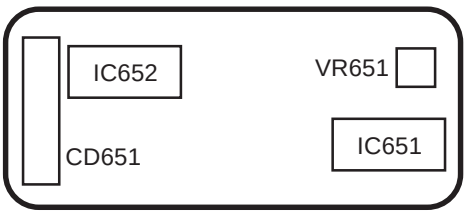


Fig. 2-2

MAJOR COMPONENTS LOCATION GUIDE



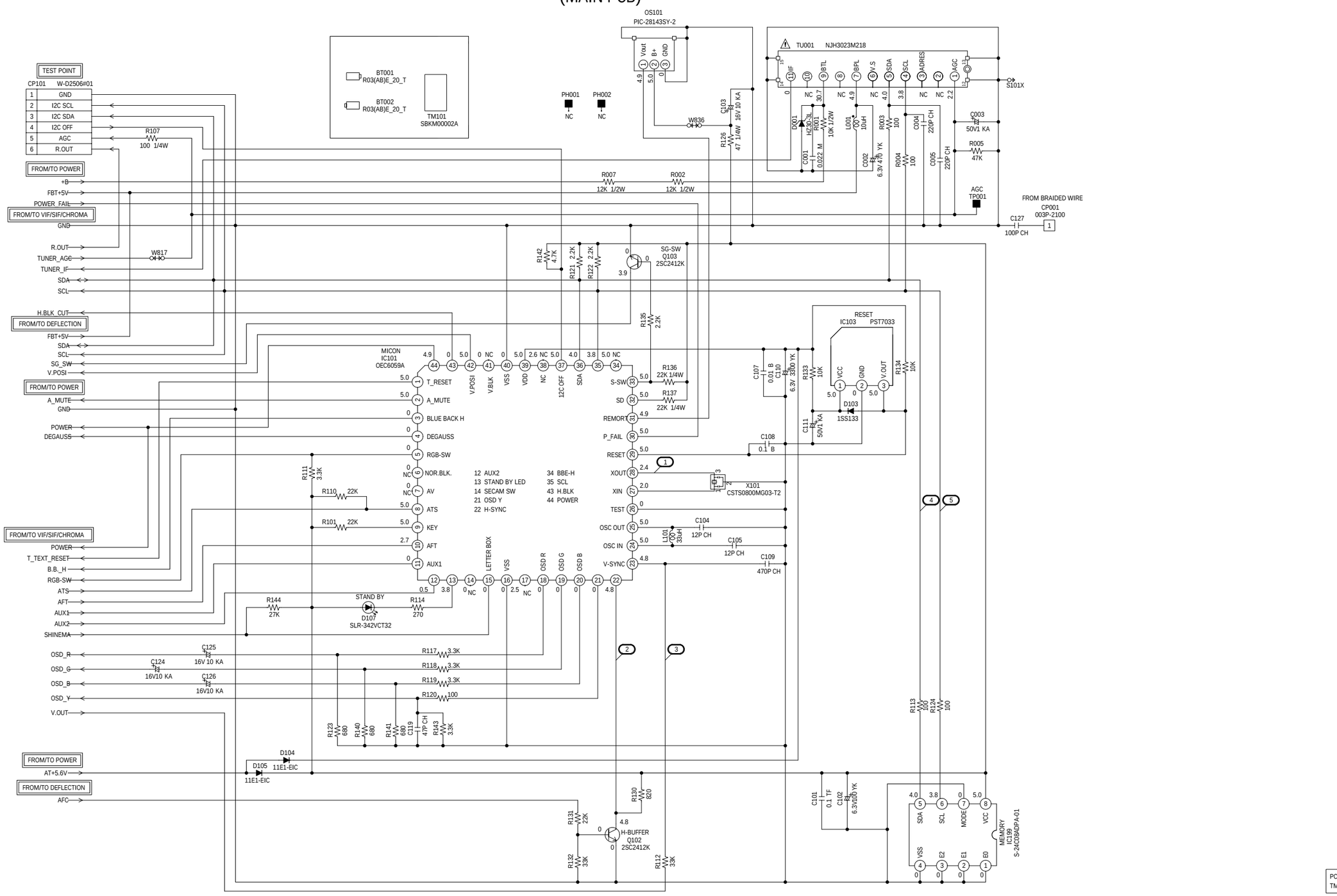
MAIN



WIDE SELECT

MICON/TUNER SCHEMATIC DIAGRAM

(MAIN PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

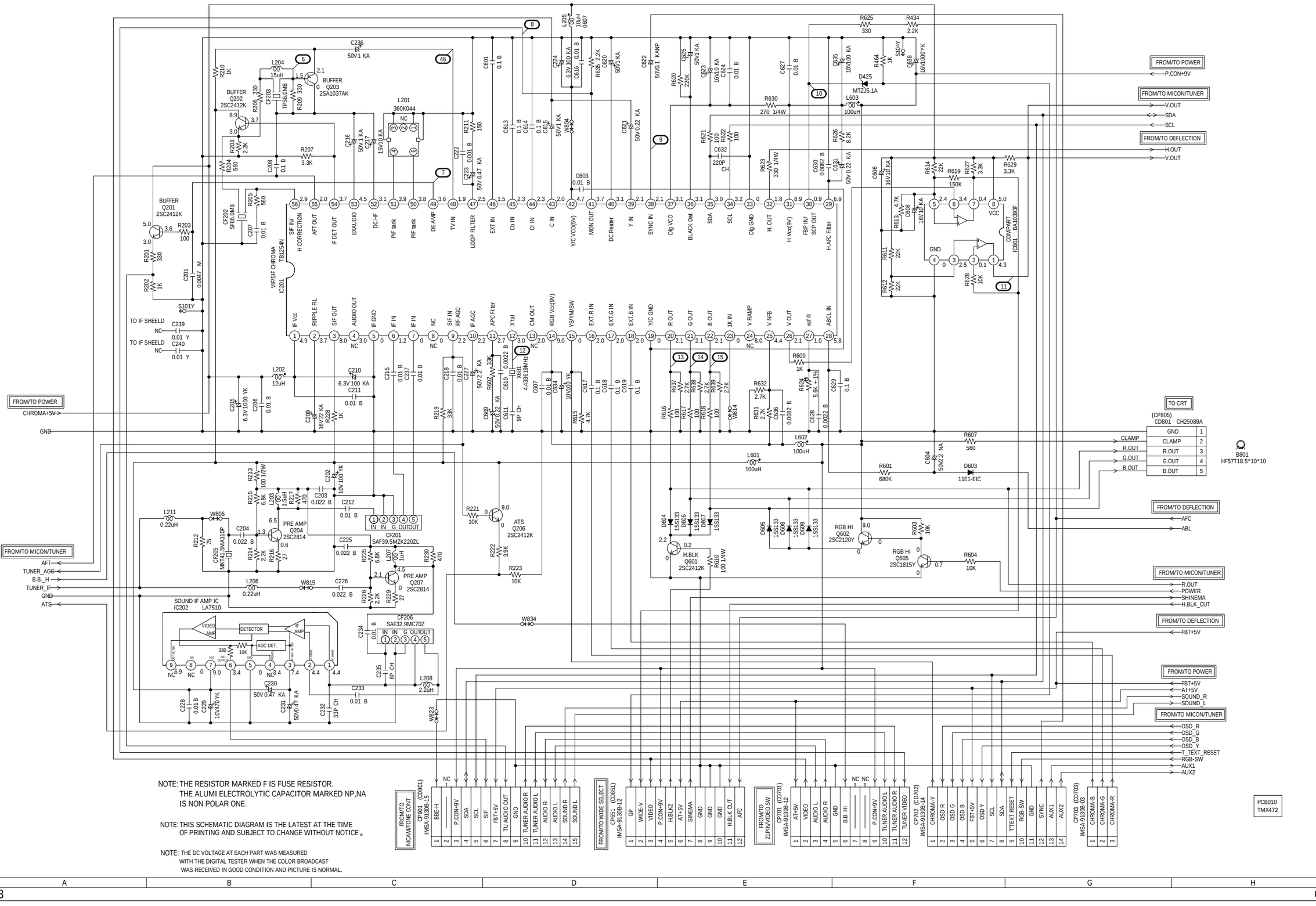
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

VIF/SIF/CHROMA SCHEMATIC DIAGRAM

(MAIN PCB)



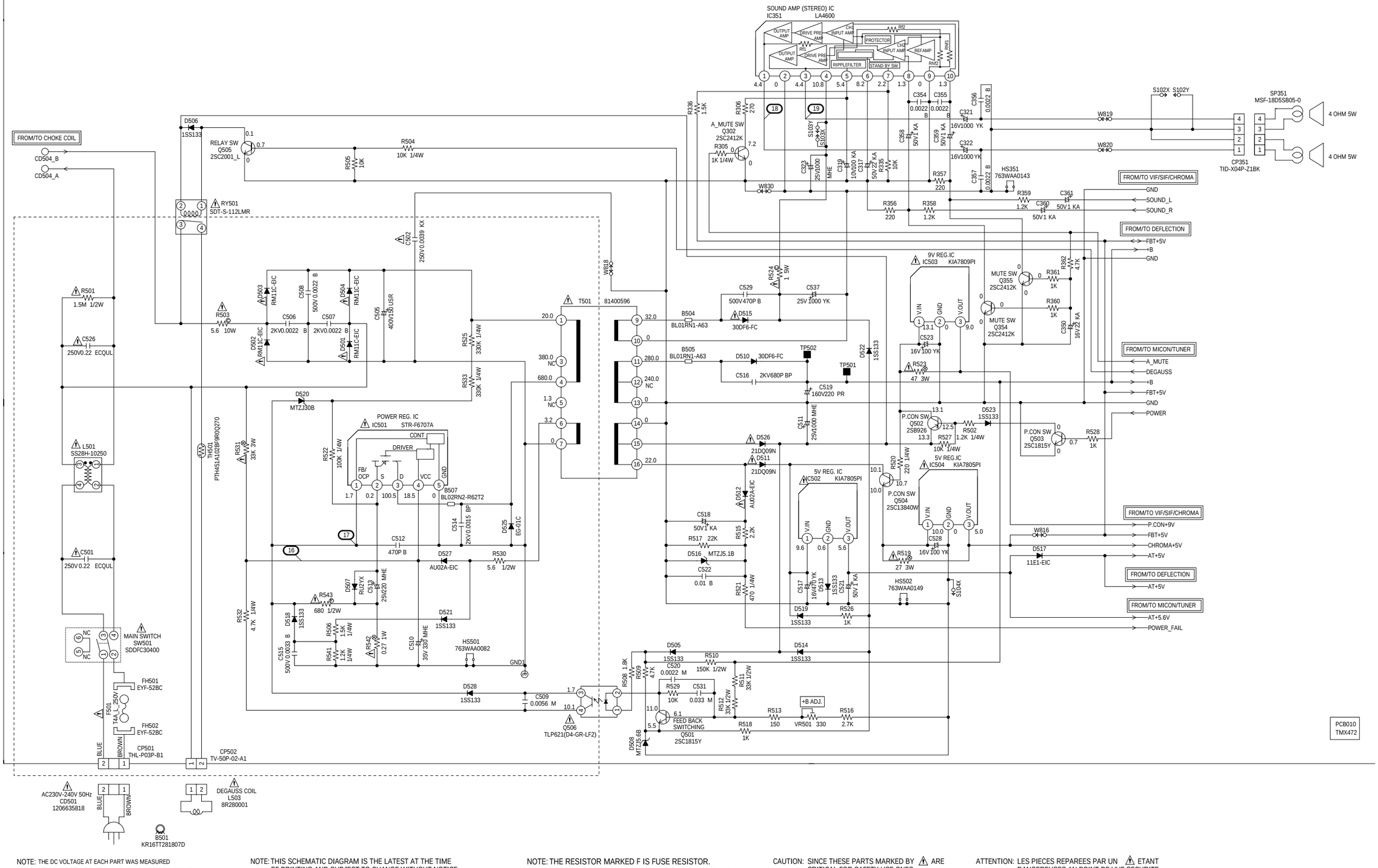
NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR.
THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP,NA
IS NON POLAR ONE.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCB010
TMX472

POWER SCHEMATIC DIAGRAM (MAIN PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

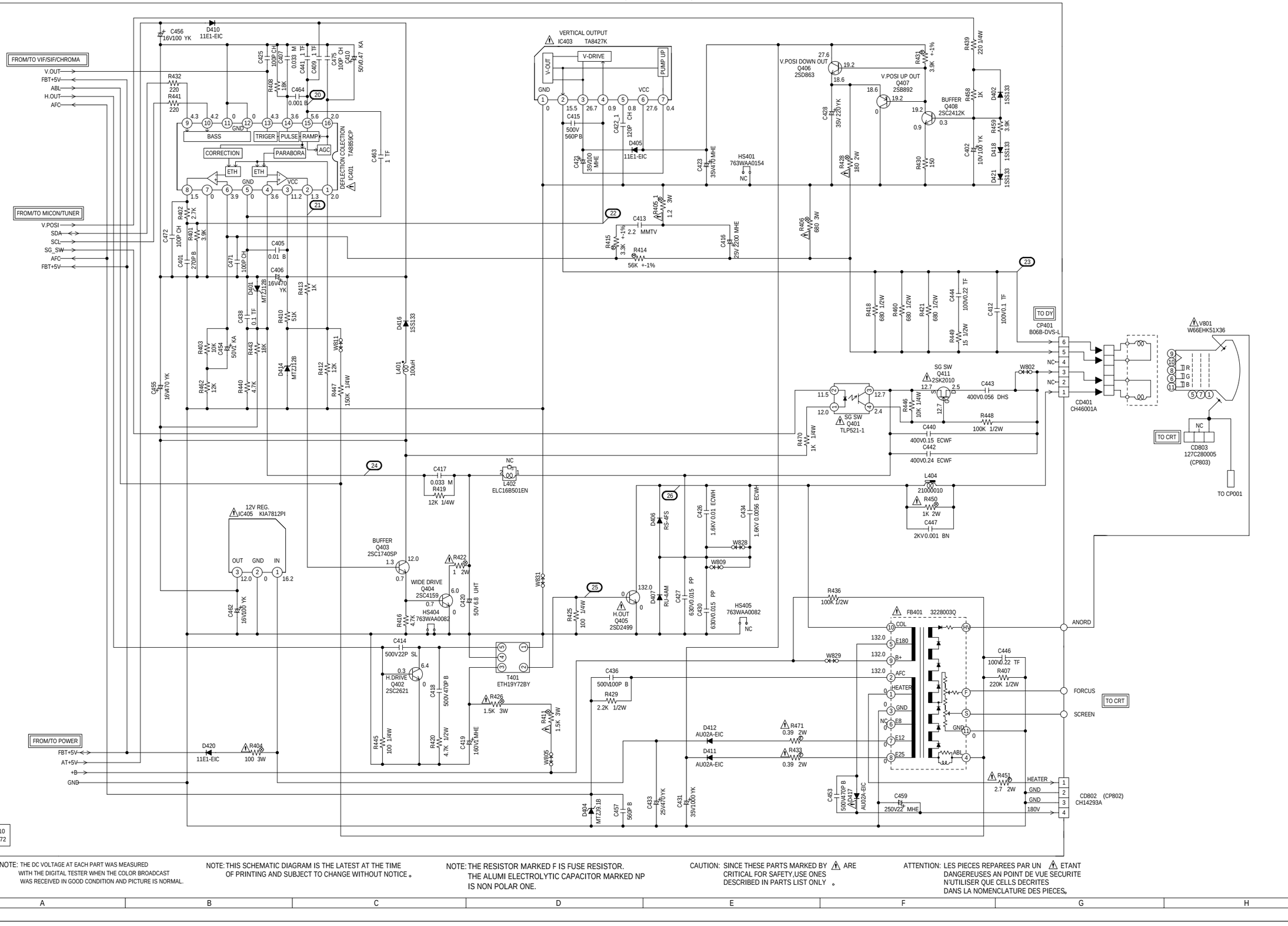
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

DEFLECTION SCHEMATIC DIAGRAM
(MAIN PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

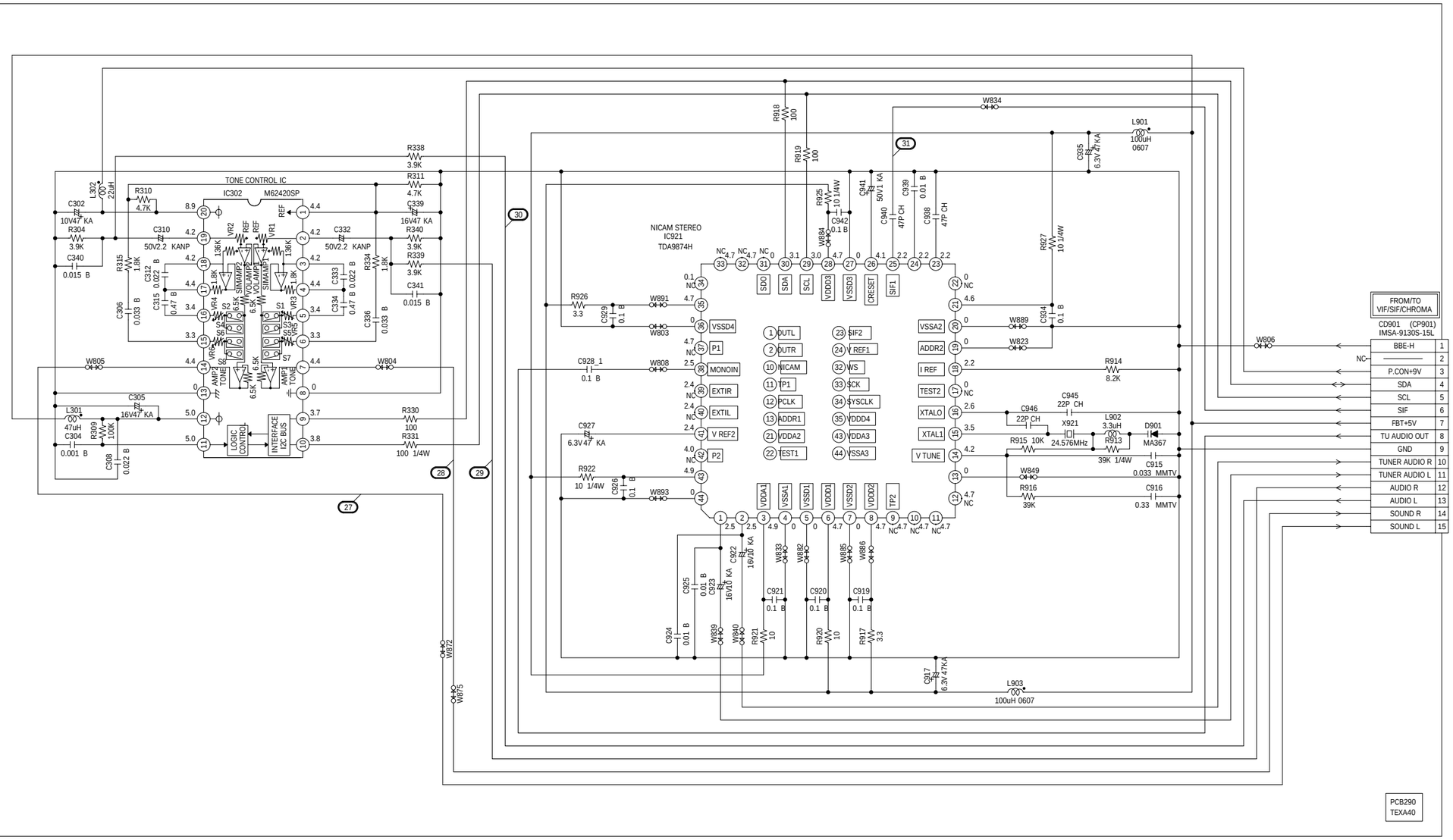
NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

NICAM/TONE CONT SCHEMATIC DIAGRAM

(STEREO PCB)



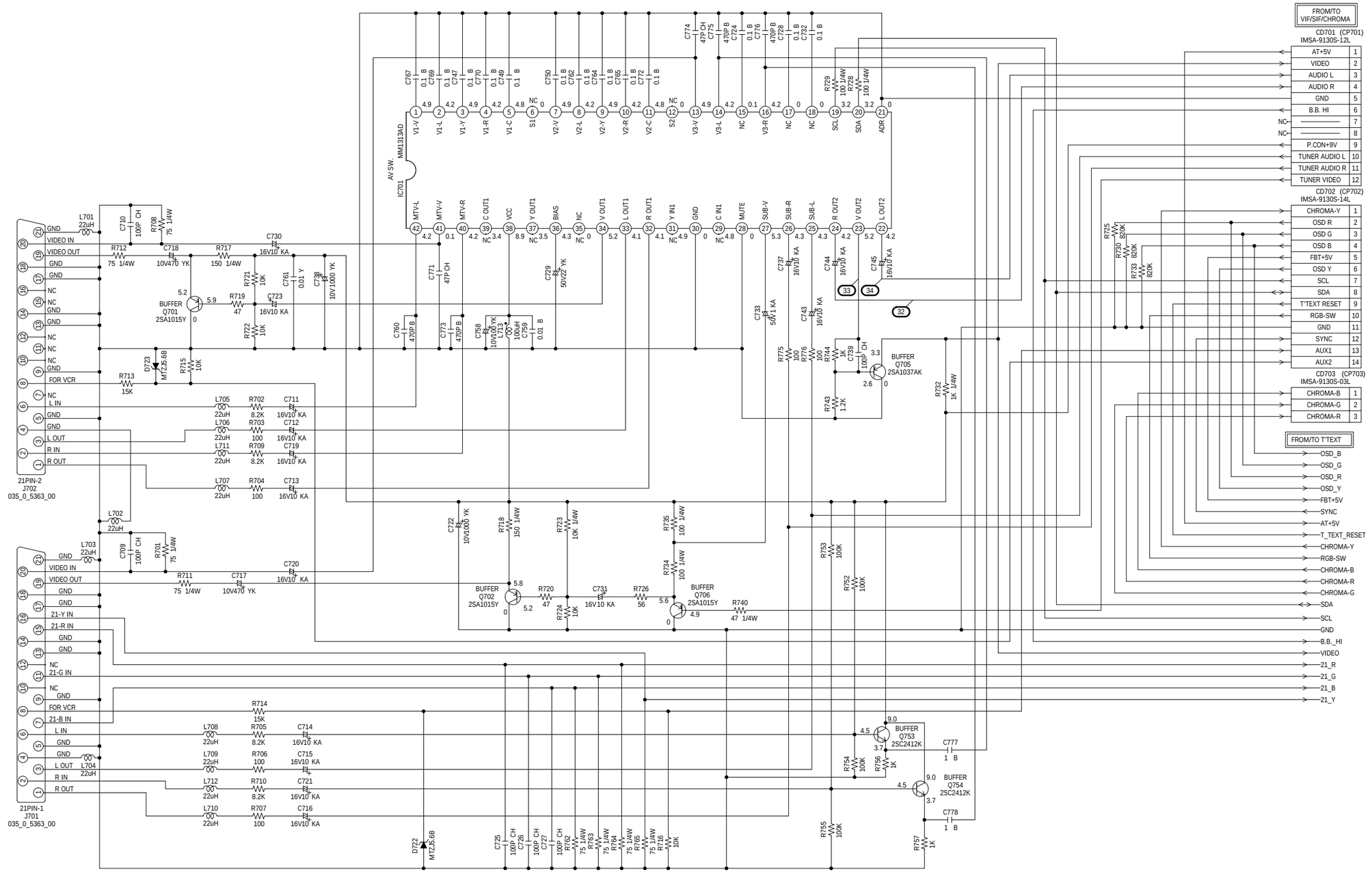
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

21PIN/VIDEO SW SCHEMATIC DIAGRAM

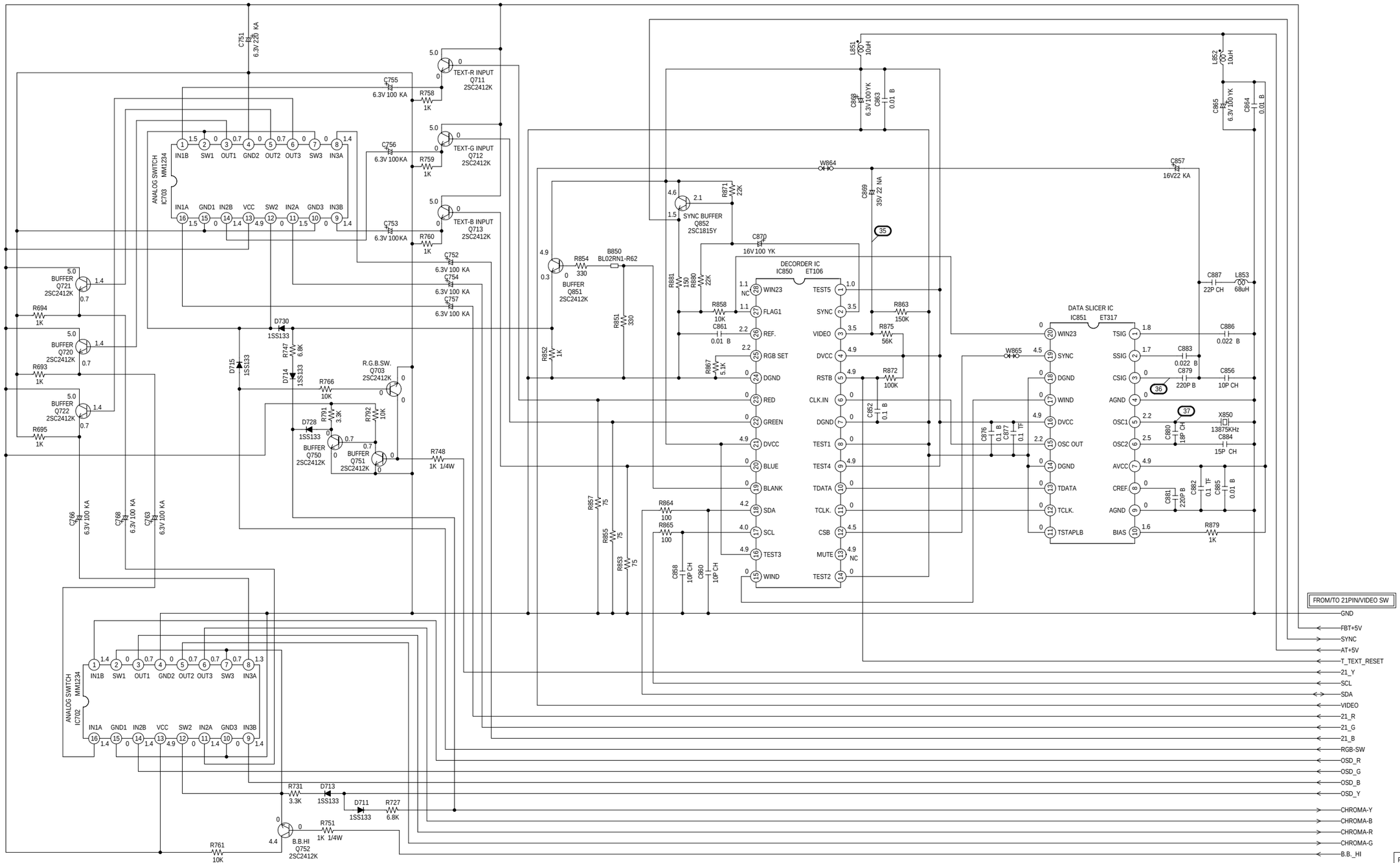
(21PIN PCB)


IC701 AV SW. MM1313AD
V1-V V1-L V1-Y V1-R V1-C S1 V2-V V2-L V2-Y V2-R V2-C S2 V3-V V3-L NC V3-R NC NC SCL SDA ADR
MTV-L MTV-V MTV-R C OUT1 VCC Y OUT1 BIAS NC V OUT1 L OUT1 R OUT1 Y IN1 GND C IN1 MUTE SUB-V SUB-R SUB-L R OUT2 V OUT2 L OUT2
FROM/TO VIF/SIF/CHROMA
CD701 (CP701) IMSA-9130S-12L
AT+5V VIDEO AUDIO L AUDIO R GND B.B. HI NC NC P.CON+9V TUNER AUDIO L TUNER AUDIO R TUNER VIDEO
CD702 (CP702) IMSA-9130S-14L
CHROMA-Y OSD R OSD G OSD B FBT+5V OSD Y SCL SDA T'TEXT RESET RGB-SW GND SYNC AUX1 AUX2
CD703 (CP703) IMSA-9130S-03L
CHROMA-B CHROMA-G CHROMA-R
FROM/TO T'TEXT
OSD_B OSD_G OSD_R OSD_Y FBT+5V SYNC AT+5V T_TEXT_RESET CHROMA-Y RGB-SW CHROMA-B CHROMA-R CHROMA-G SDA SCL GND B.B._HI VIDEO 21_R 21_G 21_B 21_Y
21PIN-2 J702 035_0_5363_00
GND VIDEO IN VIDEO OUT GND GND NC NC GND GND NC NC GND FOR VCR NC L IN GND GND L OUT R IN R OUT
21PIN-1 J701 035_0_5363_00
GND VIDEO IN VIDEO OUT GND GND 21-Y IN 21-R IN GND GND NC 21-G IN NC GND FOR VCR 21-B IN L IN GND GND L OUT R IN R OUT
BUFFER Q701 2SA1015Y
BUFFER Q702 2SA1015Y
BUFFER Q705 2SA1037AK
BUFFER Q706 2SA1015Y
BUFFER Q753 2SC2412K
BUFFER Q754 2SC2412K
D723 MTZ5.6B
D722 MTZ6.8B
PCB280 TEXA38

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

T'TEXT SCHEMATIC DIAGRAM
(21PIN PCB)


ANALOG SWITCH MM1234 IC703
IN1B SW1 OUT1 GND2 OUT2 OUT3 SW3 IN3A
IN1A GND1 IN2B VCC SW2 IN2A GND3 IN3B
TEXT-R INPUT Q711 2SC2412K
TEXT-G INPUT Q712 2SC2412K
TEXT-B INPUT Q713 2SC2412K
BUFFER Q721 2SC2412K
BUFFER Q720 2SC2412K
BUFFER Q722 2SC2412K
BUFFER Q750 2SC2412K
BUFFER Q751 2SC2412K
R.G.B.SW. Q703 2SC2412K
SYNC BUFFER Q852 2SC1815Y
BUFFER Q851 2SC2412K
B.B.HI Q752 2SC2412K
DECORDER IC IC850 ET106
WIN23 FLAG1 REF. RGB SET DGND RED GREEN DVCC BLUE BLANK SDA SCL TEST3 WIND
TEST5 SYNC VIDEO DVCC RSTB CLK.IN DGND TEST1 TEST4 TDATA TCLK. CSB MUTE TEST2
DATA SLICER IC IC851 ET317
WIN23 SYNC DGND WIND DVCC OSC OUT DGND TDATA TCLK. TSTAPLB
TSIG SSIG CSIG AGND OSC1 OSC2 AVCC CREF. AGND BIAS
X850 13875KHz
ANALOG SWITCH MM1234 IC702
FROM/TO 21PIN/VIDEO SW
GND FBT+5V SYNC AT+5V T_TEXT_RESET 21_Y SCL SDA VIDEO 21_R 21_G 21_B RGB-SW OSD_R OSD_G OSD_B OSD_Y CHROMA-Y CHROMA-B CHROMA-R CHROMA-G B.B._HI
PCB280
TEXA38

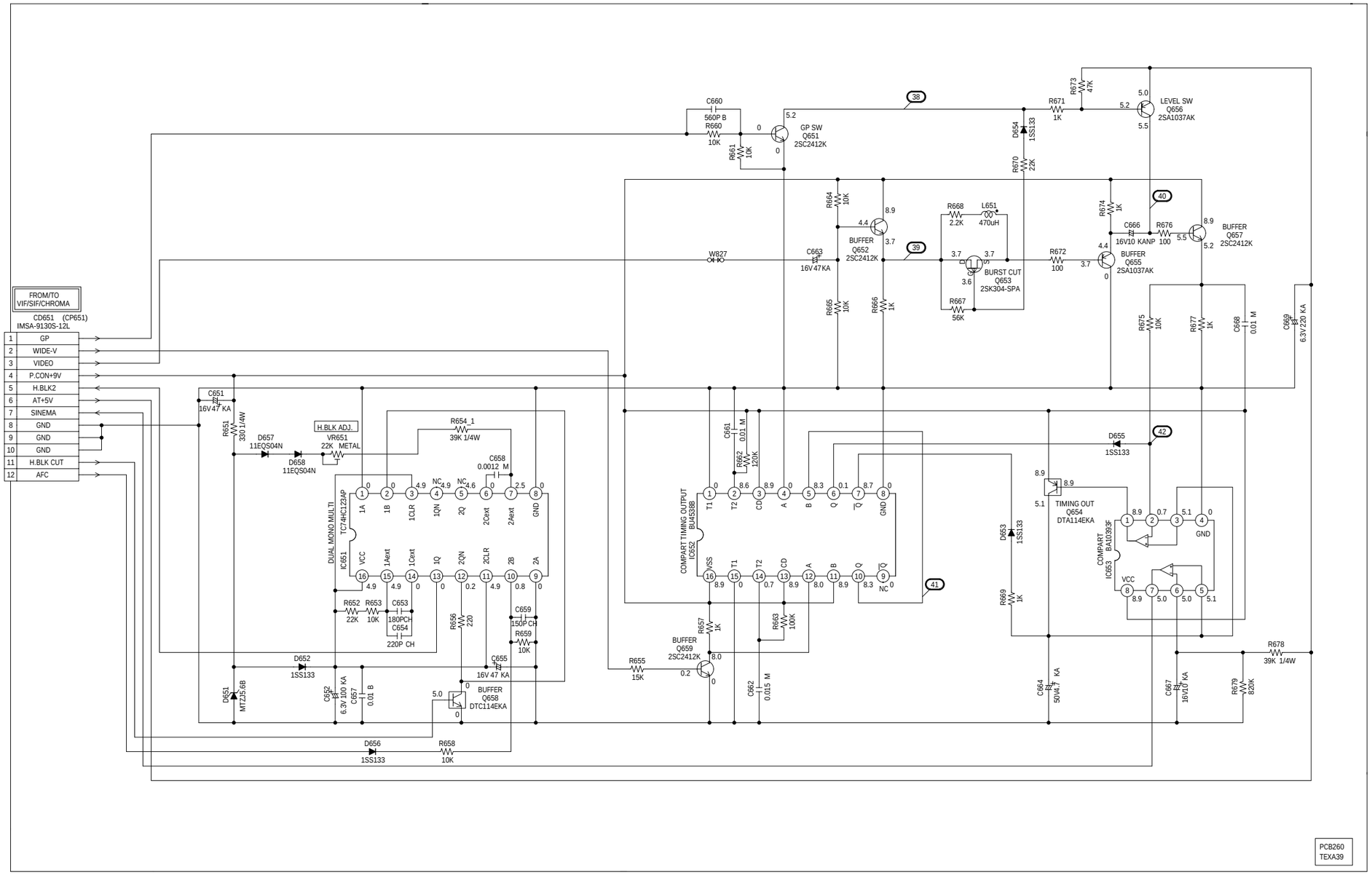
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

WIDE SELECT SCHEMATIC DIAGRAM

(WIDE SELECT PCB)

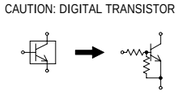


NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

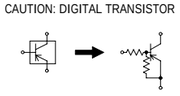
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

CAUTION: DIGITAL TRANSISTOR

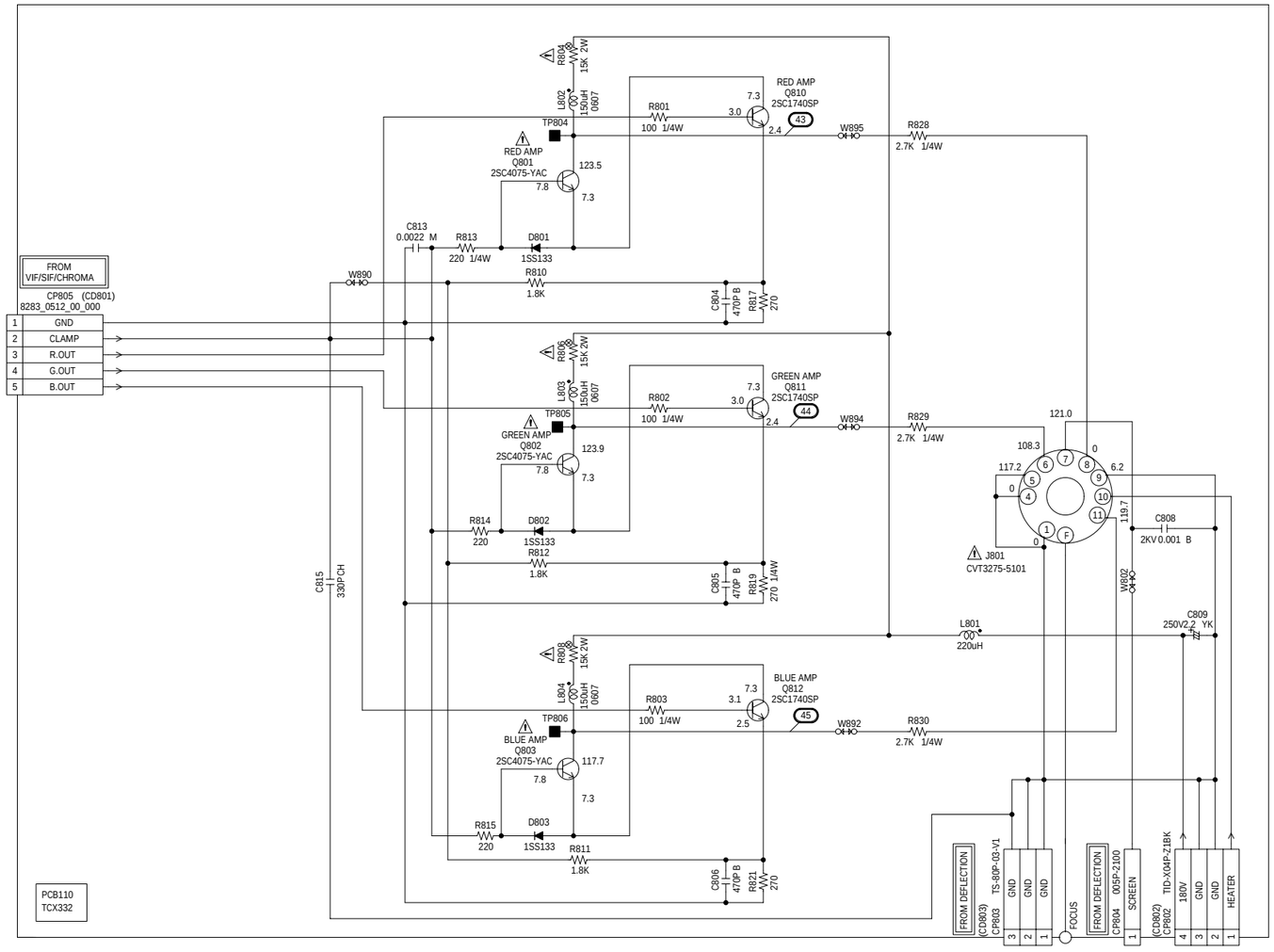


CAUTION: DIGITAL TRANSISTOR



CRT SCHEMATIC DIAGRAM

(CRT PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

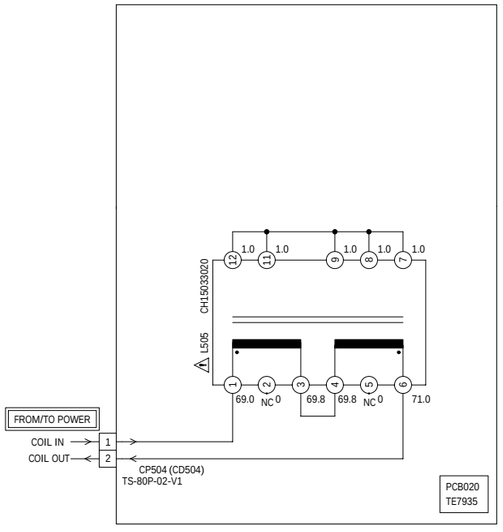
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CHOKE COIL SCHEMATIC DIAGRAM

(POWER PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

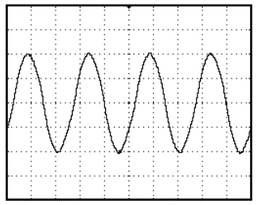
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

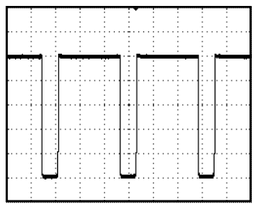
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

WAVEFORMS

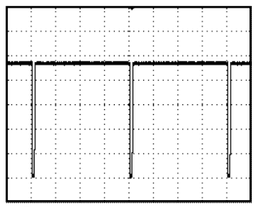
MICON/TUNER



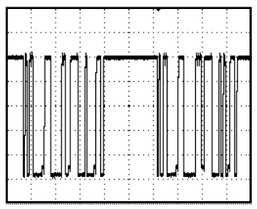
① 1.0V 50ns/div



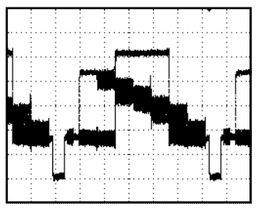
② 1.0V 20µs/div



③ 1.0V 5ms/div

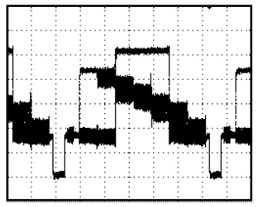


④ 1.0V 200µs/div

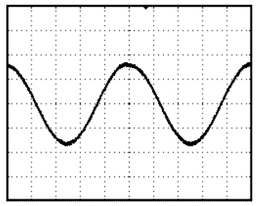


⑤ 1.0V 100µs/div

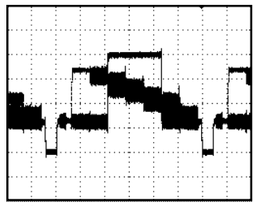
VIF/SIF/CHROMA



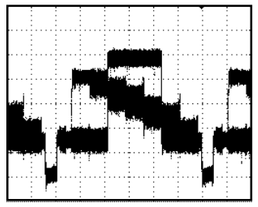
⑥ 200mV 10µs/div



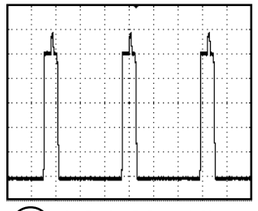
⑦ 500mV 200µs/div



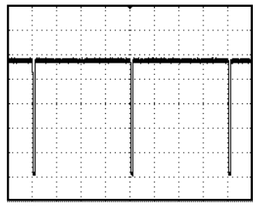
⑧ 500mV 10µs/div



⑨ 200mV 10µs/div

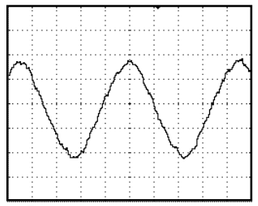


⑩ 1.0V 20µs/div

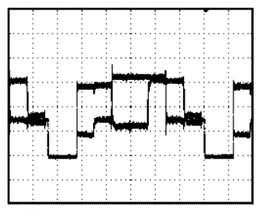


⑪ 1.0V 5ms/div

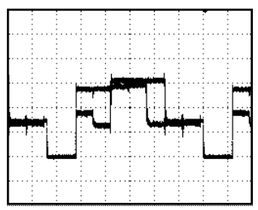
Y/C/AUDIO/HEAD AMP



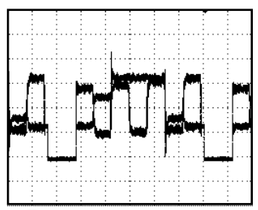
⑫ 50mV 50ns/div



⑬ 1.0V 10µs/div

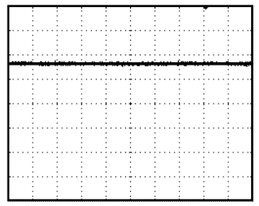


⑭ 1.0V 10µs/div



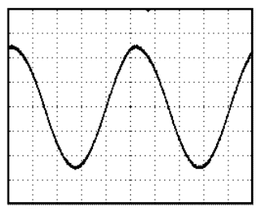
⑮ 1.0V 10µs/div

POWER

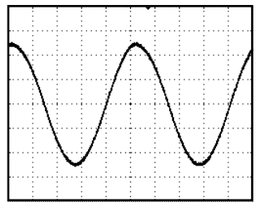


⑯ 5.0V 10µs/div

⑰ 1.0V 10µs/div

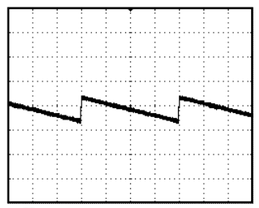


⑱ 1.0V 200µs/div

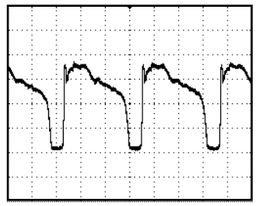


⑲ 1.0V 200µs/div

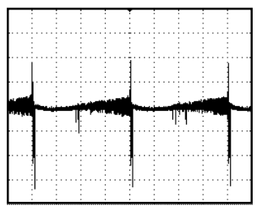
DEFLECTION



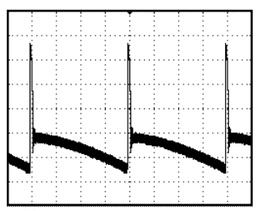
⑳ 2.0V 5ms/div



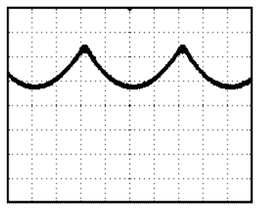
㉑ 500mV 20µs/div



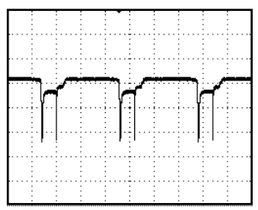
㉒ 500mV 5ms/div



㉓ 10V 5ms/div

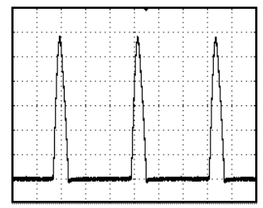


㉔ 1.0V 5ms/div

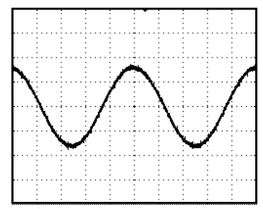


㉕ 5.0V 20ms/div

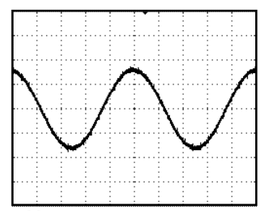
NICAM/BBE/TONE CONT



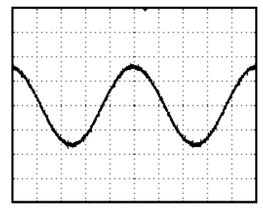
㉖ 5.0V 20µs/div



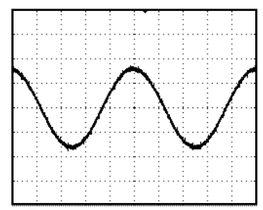
㉗ 200mV 200µs/div



㉘ 200mV 200µs/div



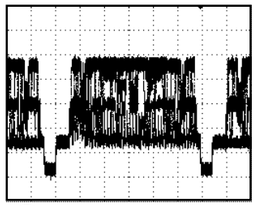
㉙ 200mV 200µs/div



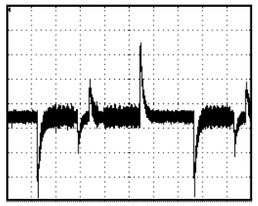
㉚ 200mV 200µs/div

NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

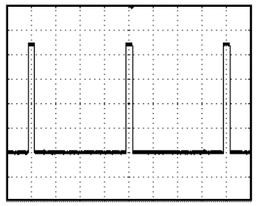
WAVEFORMS



31 200mV 10µs/div

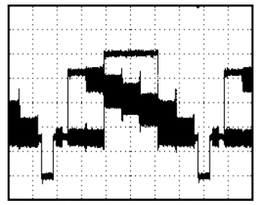


36 200mV 10µs/div



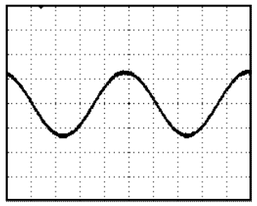
41 2.0V 5ms/div

VIF/SIF/NICAM/TUNER

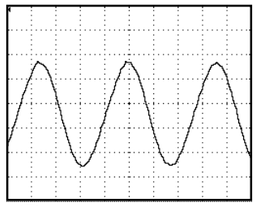


46 200mV 10µs/div

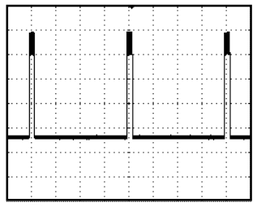
21PIN/VIDEO SW



32 500mV 200µs/div

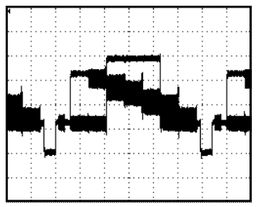


37 500mV 20ns/div

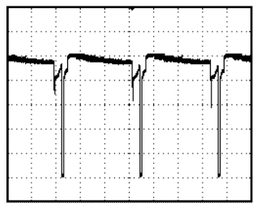


42 1.0V 5ms/div

WIDE SELECT

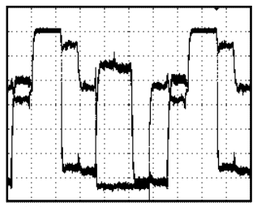


33 500mV 10µs/div

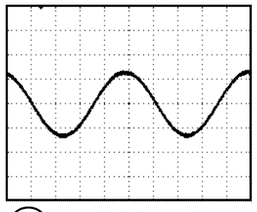


38 1.0V 20µs/div

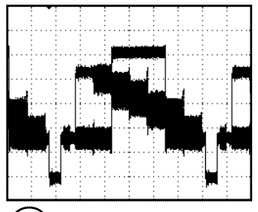
CRT



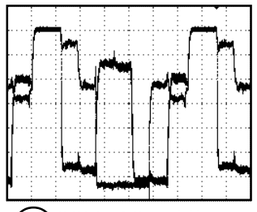
43 20V 10µs/div



34 500mV 200µs/div

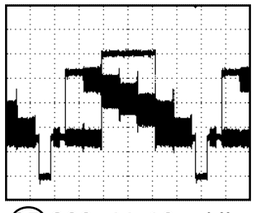


39 200mV 10µs/div

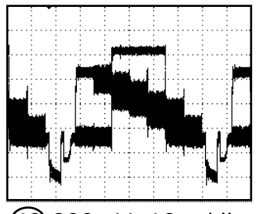


44 20V 10µs/div

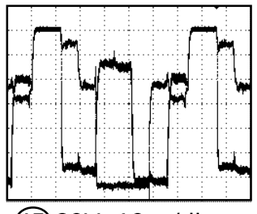
T'TEXT



35 200mV 10µs/div



40 200mV 10µs/div



45 20V 10µs/div

NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.